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CLAIMS

1. A prism made of transparent glass comprising prism surfaces subjected to light, and corner portions adjacent to the prism surfaces,

wherein surfaces of the corner portions are fire-polished surfaces, and

wherein a compressive stress layer having stress of 0.1 to 10MPa is formed in the surface of the corner portion.

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2. A prism according to claim 1, wherein a sectional area perpendicular to each of the prism surfaces is equal to or less than 100mm².

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3. A prism according to claim 1 or 2, wherein the prism satisfies a relation of $L \geq 1.5D/2^{0.5}$, where D represents a diameter of a circumscribed circle of a section perpendicular to the prism surfaces, and L represents a length of the prism in a direction parallel to the prism surfaces.

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4. A prism according to any one of claims 1 to 3, wherein an optical film is formed on the prism surface.

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5. A method for producing a prism, comprising the

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steps of:

preparing a glass base material made of transparent glass, the glass base material having surfaces to be prism surfaces after forming, the Ra value of the surface

5 roughness of the surface being less than the Ra value corresponding to #170, the glass base material having a dimensional ratio in a predetermined range with respect to the prism obtained after forming;

grasping the glass base material with a grasp portion
10 of feeding means, and feeding the glass base material into a heating furnace to heat the glass base material to a predetermined temperature so that a minimum viscosity of the glass base material becomes equal to or more than 10^4 and less than 10^6 Pa·s,

15 drawing and forming a lower portion of the glass base material by drawing means, and then cutting the glass base material into a predetermined length to obtain a longer body having a substantially similar shape to that of the glass base material and a dimension in a desired range, and
20 having prism surfaces with the Ra value of the surface roughness equal to or less than a quarter of the wavelength of incident light; and

cutting the longer body into desired length.

25 6. A method for producing a prism according to claim

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5, wherein the prism surfaces of the longer body is polished.